FY 2019 Bound Printed Matter Mail Processing Costs

I. PREFACE

A. Purpose and Content

USPS-FY19-22 develops mail processing costs for Bound Printed Matter. It contains electronic documentation of the spreadsheets and programs used to develop these costs.

B. Predecessor Documents

The most recent predecessor document was USPS-FY18-22 in Docket No. ACR2018.

C. Corresponding Non-Public Document

There is no corresponding non-public document.

D. Methodology

This analysis uses the same methodology as described in Docket No. R2006-1, USPS-LR-L-109. This methodology was used most recently in Docket No. ACR2018, USPS-FY18-22.

E. Input/Output

USPS-FY19-22 relies upon mail processing cost inputs as developed in USPS-FY19-26. It also relies upon the 2019 IOCS nonpublic data set in USPS-FY19-NP21 and replicates cost distribution and cost pool assignment methodology in USPS-FY19-7.

The mail processing costs for Bound Printed Matter are used in the parcel cost models in USPS-FY19-15.

II. ORGANIZATION

The main results are presented in two Microsoft Office Excel workbooks: FY19 BPM Costs ASF.xls and FY19 BPM Costs Op07.xls. These workbooks contribute Tables 1 and 2, below, respectively. Data sources are referenced in each spreadsheet in the Microsoft Office Excel workbooks. The programs and workbooks used to estimate these costs are described in the Program Documentation section below.

Table 1
Total Bound Printed Matter Mail Processing Costs by ASF/NonASF and Basic Function
Fiscal Year 2019 Volume Variable Costs ($000)
(Piggyback and Premium Pay Factors Applied)

		Non-ASF				ASF				Grand
Office	Cost Pool	Outgoing	Incoming	Transit	Other	Outgoing	Incoming	Transit	Other	Total
1 MODS	D/BCS	4	150	0	354	0	1	0	4	513
4 MODS	AFSM100	1,765	6,354	0	5,427	16	460	0	81	14,103
5 MODS	FSS	848	3,784	0	2,239	4	0	0	0	6,876
9 MODS	APBS BNDL	664	4,060	0	2,362	6	37	0	49	7,177
10 MODS	APBSPRIO	2,438	4,657	0	3,149	38	20	0	43	10,345
11 MODS	LCUS-SSM	124	262	0	155	1	187	0	1	730
12 MODS	1TRAYSRT	278	548	0	634	4	7	0	8	1,480
13 MODS	MANF	531	534	0	785	4	141	0	10	2,005
14 MODS	MANL	1	1	0	0	0	0	0	0	2
15 MODS	MANP	2	0	0	1	0	0	0	0	3
16 MODS	PRIORITY	805	1,699	0	915	12	3	0	10	3,443
17 MODS	LD15	92	283	0	73	0	0	0	0	449
18 MODS	1CANCEL	311	28	0	186	4	9	0	6	543
19 MODS	1DSPATCH	88	411	0	288	0	0	0	1	789
21 MODS	1MTRPREP	8	2	0	10	0	0	0	0	20
22 MODS	1OPBULK	4	7	0	12	0	1	0	1	25
23 MODS	1OPPREF	159	53	0	440	7	2	0	23	683
24 MODS	1OPTRANS	7	3	0	98	0	0	0	0	108
25 MODS	1PLATFRM	1,233	1,676	0	11,920	12	14	0	230	15,086
26 MODS	1POUCHNG	6	22	0	11	0	0	0	0	39
27 MODS	1PRESORT	397	44	0	323	5	0	0	45	815
28 MODS	1SACKS_H	88	273	0	183	0	0	0	0	545
29 MODS	1SCAN	244	5	0	94	6	0	0	5	354
31 MODS	BUSREPLY	0	0	0	5	0	0	0	0	5
32 MODS	EXPRESS	1	1	0	1	0	0	0	0	3
34 MODS	REGISTRY	0	0	0	1	0	0	0	0	1
35 MODS	REWRAP	0	0	0	0	0	0	0	0	0
36 MODS	1EEQMT	7	13	0	425	2	2	0	10	459
37 MODS	1MISC	18	14	0	139	0	0	0	8	179
38 MODS	1SUPPORT	181	10	0	87	2	2	0	5	286
52 MODS	INTL ISC	50	7	0	53	0	0	0	0	110
62 NDCs	ManP	6	82	0	59	0	0	0	0	147
63 NDCs	LCUS-SSM	148	345	0	2,812	0	0	0	0	3,304
65 NDCs	FSS-NDC	21	657	0	569	0	0	0	0	1,248
66 NDCs	OTH	120	85	0	2,985	0	0	0	0	3,190
67 NDCs	PLA	1,336	1,205	0	15,361	0	0	0	0	17,902
68 NDCs	PSM	1,628	3,835	0	13,132	0	0	0	0	18,596
69 NDCs	APB	1,071	998	0	3,552	0	0	0	0	5,620
71 NDCs	TraySort	120	718	0	1,130	0	0	0	0	1,968
72 Non-MODS	N_Allied	2,888	9,115	0	5,003	0	0	0	0	17,006
73 Non-MODS	N_Auto	12	183	0	8	0	0	0	0	203
74 Non-MODS	N_BulkAccp	401	0	0	0	0	0	0	0	401
75 Non-MODS	N_BusReply	0	0	0	7	0	0	0	0	7
76 Non-MODS	N_CFSCMU	0	0	0	1,031	0	0	0	0	1,031
77 Non-MODS	N_Express	17	3	0	2	0	0	0	0	22
78 Non-MODS	N_Man_F	43	7,739	0	331	0	0	0	0	8,113
79 Non-MODS	N_Man_L	1	220	0	1	0	0	0	0	222
80 Non-MODS	N_Man_P	921	41,182	0	742	0	0	0	0	42,845
81 Non-MODS	N_Misc	204	276	0	6,047	0	0	0	0	6,527
82 Non-MODS	N_Oth Acct	0	0	0	314	0	0	0	0	314
83 Non-MODS	N_PO Box	0	876	0	4,913	0	0	0	0	5,789
84 Non-MODS	N_Registry	0	0	0	376	0	0	0	0	376
	Total	19,289	92,418	0	88,747	123	886	0	541	202,004

Table 2
Total Bound Printed Matter Mail Processing Costs by Operation
Fiscal Year 2019 Volume Variable Costs ($000)
(Piggyback and Premium Pay Factors Applied)

Group	Pool	All Other	OP 07	Total
1 MODS	D/BCS	513	0	513
4 MODS	AFSM100	14,103	0	14,103
5 MODS	FSS	6,876	0	6,876
9 MODS	APBS BNDL	7,177	0	7,177
10 MODS	APBSPRIO	10,345	0	10,345
11 MODS	LCUS-SSM	730	0	730
12 MODS	1TRAYSRT	1,480	1	1,480
13 MODS	MANF	2,005	0	2,005
14 MODS	MANL	2	0	2
15 MODS	MANP	3	0	3
16 MODS	PRIORITY	3,442	1	3,443
17 MODS	LD15	449	0	449
18 MODS	1CANCEL	543	0	543
19 MODS	1DSPATCH	789	0	789
21 MODS	1MTRPREP	20	0	20
22 MODS	1OPBULK	25	0	25
23 MODS	1OPPREF	683	0	683
24 MODS	1OPTRANS	108	0	108
25 MODS	1PLATFRM			
25 MODS	Outgoing	1,245	0	1,245
25 MODS	Incoming	1,691	0	1,691
25 MODS	Transit	0	0	0
25 MODS	Other	12,150	0	12,150
25 MODS	Total Platform	15,086	0	15,086
26 MODS	1POUCHNG	39	0	39
27 MODS	1PRESORT	815	0	815
28 MODS	1SACKS_H	545	0	545
29 MODS	1SCAN	354	0	354
31 MODS	BUSREPLY	5	0	5
32 MODS	EXPRESS	3	0	3
34 MODS	REGISTRY	1	0	1
35 MODS	REWRAP	0	0	0
36 MODS	1EEQMT	459	0	459
37 MODS	1MISC	179	0	179
38 MODS	1SUPPORT	286	0	286
52 MODS	INTL ISC	110	0	110
62 NDCs	ManP	147	0	147
63 NDCs	LCUS-SSM	3,304	0	3,304
65 NDCs	FSS-NDC	1,248	0	1,248
66 NDCs	OTH	3,172	18	3,190
67 NDCs	Platform NDC			
67 NDCs	Outgoing	1,153	182	1,336
67 NDCs	Incoming	1,205	0	1,205
67 NDCs	Transit	0	0	0
67 NDCs	Other	15,361	0	15,361
67 NDCs	Total NDC Pltfrm	17,719	182	17,902
68 NDCs	PSM	18,581	15	18,596
69 NDCs	APB	5,620	0	5,620
71 NDCs	TraySort	1,968	0	1,968
72 Non-MODS	N_Allied			
72 Non-MODS	Outgoing	2,888	0	2,888
72 Non-MODS	Incoming	9,115	0	9,115
72 Non-MODS	Transit	0	0	0
72 Non-MODS	Other	5,003	0	5,003
72 Non-MODS	Total Allied	17,006	0	17,006
73 Non-MODS	N_Auto	203	0	203
74 Non-MODS	N_BulkAccp	0	401	401
75 Non-MODS	N_BusReply	7	0	7
76 Non-MODS	N_CFSCMU	1,031	0	1,031
77 Non-MODS	N_Express	22	0	22
78 Non-MODS	N_Man_F	8,113	0	8,113
79 Non-MODS	N_Man_L	222	0	222
80 Non-MODS	N_Man_P	42,845	0	42,845
81 Non-MODS	N_Misc	6,527	0	6,527
82 Non-MODS	N_Oth Acct	314	0	314
83 Non-MODS	N_PO Box	5,789	0	5,789
84 Non-MODS	N_Registry	376	0	376
	Total	201,386	618	202,004

III. PROGRAM DOCUMENTATION

A. Computer Hardware and Software

The FORTRAN programs are run on a HP ProLiant DL560 Gen 8 with four Intel Xeon E5-4650 (each with 8 cores @ 2.70GHz) microprocessors and 256 GB of RAM. The operating system on this computer is Red Hat Enterprise Linux Server release 7.7 (Maipo) with the kernel 3.10.0-1062.1.2.el7.x86_64. FORTRAN programs are compiled using GFORTRAN from GNU Compiler Collection (GCC) version 4.8.5, which can be downloaded from http://gcc.gnu.org/fortran . The manual processing spreadsheet work is performed on PCs running the Windows 10 (64-bit) operating system and using Microsoft Office Excel 1902 (64-bit) from Microsoft Office 365 (64-bit).

USPS-FY19-22 includes electronic versions of all relevant programs, maps, and data files. The compiler used to run the PC-based FORTRAN programs can be downloaded freely from http://gcc.gnu.org/wiki/GFortranBinaries. Download the Windows 64-bit version of GFORTRAN. To compile use the command line: x86_64-pc-mingw32-gfortran.exe –O2 –ffixed-line-length-132 –finit-local-zero –fbounds-check –o {executable name} {program name.f}. The PC-based FORTRAN programs should be run in the same order as the programs are described below.

B. Preparation of the IOCS Data

The following program extracts clerk and mail handler tallies from the 2019 IOCS data set and prepares the tallies for the volume-variable cost distribution for mail processing Bound Printed Matter (BPM) costs for clerks and mail handlers to basic function/ASF/operation category.

Program: **cadoc19_prc.f** – Separates the clerk and mail handler tallies from the entire 2019 IOCS data set, separates the tallies between mail processing and administrative/window service, and assigns a cost pool to each tally using the method described in USPS-FY19-7.

Input: **FY19 IOCS Data** – Text flat file version of the submitted SAS IOCS nonpublic data set (USPS-FY19-NP21)
iocs2019_np.h – Declaration of IOCS tally fields
mods_fins19.prn – List of MODS 1&2 finance numbers used to identify MODS 1&2 offices (USPS-FY19-7)
mods_fcn4_fy19.prn – Map of function 4 MODS operation codes which are assigned to Non-MODS cost pools
costpools19.prn – Map of mail processing cost pools

Output: **clk_mh_mp19.dat** – IOCS mail processing tallies
clk_mh_aw19.dat – IOCS administrative and window service tallies

C. Cost Estimates by Basic Function/ASF/Operation Category – Clerks and Mail Handlers, Mail Processing

The following FORTRAN programs replicate the function of the mail processing cost distribution SAS programs documented in USPS-FY19-7. These programs use the cost distribution methodology described in USPS-FY19-7 to estimate mail processing volume-variable costs by subclass, cost pool, shape, and basic function/ASF/operation category. Basic function/ASF/operation categories are combinations of the following groups: auxiliary service facilities (ASFs) versus non-ASFs, operation code 07 (mail acceptance) versus all other operations, and basic function. The results of these programs are exported into Microsoft Office Excel where the estimated costs are used as a distribution key to distribute FY19 CRA Cost Segment 3.1 BPM costs to subclass, shape, and basic function/ASF/operation category.

Program: **mpproc19_bpm.f** – Estimates mail processing costs by activity code, cost pool, and basic function/ASF/operation category

Input: **clk_mh_mp19.dat** – IOCS mail processing tallies
iocs2019_np.h – Declaration of IOCS tally fields
asf.fin.19.srt – Map of ASF finance numbers
activity19_cra_intl.prn – List of the direct and class specific mixed activity codes
mixclass.intl – List of class specific mixed mail activity codes
mxmail.intl.dat19 – Maps the direct activity codes to their respective class specific mixed mail activity codes
costpools19_ld15.prn – List of mail processing cost pools and cost pool dollars (USPS-FY19-7)

Output: **mp19prc_bpm.data** – Estimated mail processing costs by cost pool, activity code, and basic function/ASF/operation category

Program: **sumclass_bpm.f** – Rolls up the BPM mail processing volume-variable costs, estimated from the program mpproc19_bpm.f

Input: **mp19prc_bpm.data** – Estimated mail processing volume-variable costs by cost pool, activity code, and basic function/ASF/operation category
costpools19_ld15.prn – List of mail processing cost pool
activity19_cra_intl.prn – List of the direct and class specific mixed activity codes
classes_cra19.prn – List of CRA subclasses

Output: **mp19_prc_bpm.csv** – Estimated mail processing costs for Bound Printed Matter by cost pool and basic function/ASF/operation category

Workbook: **FY19 BPM PRC Costs.xls** – Estimated mail processing volume-variable costs for Bound Printed Matter by cost pool and basic function/ASF/operation category

Input: **mp19_prc_bpm.csv** – Output from the program sumclass_bpm.f
FY19 mail processing volume-variable costs – BPM volume-variable costs by shape for mail processing (USPS-FY19-26)

Workbook: **FY19 BPM Costs Op07.xls** – Summarizes clerk/mail handler mail processing costs by cost pool and operation 07 (platform acceptance) versus all other operations for BPM. Fiscal year piggyback factors and cost ratios are applied to generate BPM costs by cost pool and facility.

Input: **FY19 BPM Costs.xls** – Provides FY19 clerk/mail handler mail processing cost estimates by cost pool and basic function/ASF/operation category for BPM
FY19 Piggyback Factors, Cost Ratios, Volume Ratios, and Reconciliation Factors – USPS-FY19-26
FY19 BPM Cost Segment 3.1 Costs – USPS-FY19-2
FY19 Piggyback Factors by Cost Segment – USPS-FY19-24

Workbook: **FY19 BPM Costs ASF.xls** – Summarizes clerk/mail handler mail processing volume-variable costs by cost pool and auxiliary service facility (ASF) versus non-ASF facilities for BPM. Fiscal year piggyback factors and cost ratios are applied to generate BPM costs by cost pool and facility.

Input: **FY19 BPM Costs.xls** – Provides FY19 clerk/mail handler mail processing volume-variable cost estimates by cost pool and basic function/ASF/operation category for BPM
FY19 Piggyback Factors, Cost Ratios, and Reconciliation Factors – USPS-FY19-26
FY19 BPM Cost Segment 3.1 Costs – USPS-FY19-2
FY19 Piggyback Factors by Cost Segment – USPS-FY19-24